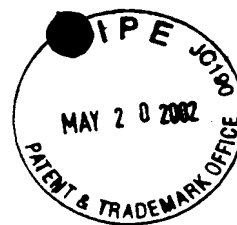


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Kinney, Tony
Tingey, Scott

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Trp Leu Val Ser Lys Gly Arg Met Ala Ala Ala Lys Arg Val Xaa Gln
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Ala Asp Trp Leu Gly Arg Arg Pro Met Met Ile Ile Ser Ser Val Leu
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Ala Leu Thr Ile Phe Phe Leu Pro Glu Ser Pro Arg Trp Leu Val Ser
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 Tyr Met Ser Asp Ala Thr Arg Gly Asp Ser Asp Asp Asn Leu His Ser
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 Ser Gly Ile Asn Gly Val Leu Tyr Tyr Thr Pro Gln Ile Leu Glu Glu
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 Ala Gly Val Glu Val Leu Leu Ser Asp Ile Gly Ile Gly Ser Glu Ser
 545 550 555 560
 Ala Ser Phe Leu Ile Ser Ala Phe Thr Thr Phe Leu Met Leu Pro Cys
 565 570 575
 Ile Gly Val Ala Met Lys Leu Met Asp Val Ser Gly Arg Arg Gln Leu
 580 585 590

Leu Leu Thr Thr Ile Pro Val Leu Ile Val Ser Leu Ile Ile Leu Val
 595 600 605
 Ile Gly Ser Leu Val Asn Phe Gly Asn Val Ala His Ala Ala Ile Ser
 610 615 620
 Thr Val Cys Val Val Val Tyr Phe Cys Cys Phe Val Met Gly Tyr Gly
 625 630 635 640
 Pro Ile Pro Asn Ile Leu Cys Ser Glu Ile Phe Pro Thr Arg Val Arg
 645 650 655
 Gly Leu Cys Ile Ala Ile Cys Ala Leu Val Phe Trp Ile Gly Asp Ile
 660 665 670
 Ile Ile Thr Tyr Ser Leu Pro Val Met Leu Gly Ser Leu Gly Leu Gly
 675 680 685
 Gly Val Phe Ala Ile Tyr Ala Val Val Cys Phe Ile Ser Trp Ile Phe
 690 695 700
 Val Phe Leu Lys Val Pro Glu Thr Lys Gly Met Pro Leu Glu Val Ile
 705 710 715 720
 Ser Glu Phe Phe Ser Val Gly Ala Lys Gln Ala Ala Ser Ala Lys Asn
 725 730 735

310

<210> 9
 <211> 1692
 <212> DNA
 <213> Glycine max

<400> 9
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 gaagcatggc aaatccaaag agtctagtgg accctctagt gacctctttt ggtagtgtac 180
 atgagaagct cccagaaaaca ggaagcacc cttttccaca ctttgggagt atgttcagtg 240
 ttgggggaaa ccagccaaag aatgaagatt gggatgagga aagccctagcc agagagggtg 300
 atgattatgt ctctgatgct ggtgattctg atgacaattt gcagagtcca ttgatctcac 360
 gtcaaaccaac gaggctggat aaggacatac ctctctatgc ccatagtaac cttgcaagca 420
 ttaggcaagg tagtctctta catggaaaatt caggagaacc cactggtagt actgggattg 480
 ttgggtggtg gcagctagca tggaaatggt ctgaaagaga gggccagat ggaaagaagg 540
 aaggtgggtt caagagaata tatttacacc aagatggtgg ttctggatct agaagtggtg 600
 ttgtggttct accctctggc ggtgattttac caactgacag tgaggttgta caggtctgtg 660
 ctctgggtgag ccagccctgc ctttataatg aggaacttat ggtccaaagg ccagttggac 720
 tagctatgat tcatccctct gaaacaattg caaaagggcc aagttggagt gatctttttg 780
 aacctgggtt gaagcatgca ttgatttgtg ggtgggaat gcaaatcttt cagcagttct 840
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 ctctcttttc aagccctagg cttgggtctc ctctctcttc cttctttatt agtgcggtga 960
 caaccttggt gatgttctt ttctatacca ttgcatgag gctcatggat atttcaggca 1020
 caaggacttt gctgctagct acaatccagg tctaatagc aatctctctc atattagtcc 1080
 tgggaagttt ttgtgatttg ggtatcactg caaatgcata aaatccaaac attagtgtta 1140
 ttgtctatct ctgtttcttt gtcattggat ttggacaaat tcttaataa ctttgtgcag 1200
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 ttccagaaaac caagggcacg ccactgggaag tgatcattga gttctctct gtccggagcaa 1440
 aacagtttga cgtatccaaq cacaactgac ccaagacat gataattcca aagttttgac 1500
 ggtacctttt aattactttt aatctacccc ttgttgatat ttctctctct tttaaaaatt 1560
 tattttctat tattctctct tttccgttgg ttgagatttg agaaaacaga aactttgttt 1620
 ctgtaaaagaa aaatgttcat tttctgggtc attcatgtaa ctttatatac ttcctaaaaa 1680
 aaaaaaaaaa aa 1692

<210> 10
 <211> 436
 <212> PPT
 <213> Glycine max

<400> 15

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Gly	Gln	Ser	Trp	Val	Ala	Arg	Pro	Val	Ala	Gly	Pro	Asn	Ser	Val	Gly
			20					25					30		
Leu	Val	Ser	Arg	Lys	Gly	Ser	Met	Ala	Asn	Pro	Ser	Ser	Leu	Val	Asp
		35					40					45			
Pro	Leu	Val	Thr	Leu	Phe	Gly	Ser	Val	His	Glu	Lys	Leu	Pro	Glu	Thr
	50					55					60				
Gly	Ser	Thr	Leu	Phe	Pro	His	Phe	Gly	Ser	Met	Phe	Ser	Val	Gly	Gly
	65				70					75					80
Asn	Gln	Pro	Arg	Asn	Glu	Asp	Trp	Asp	Glu	Glu	Ser	Leu	Ala	Arg	Glu
				85					90					95	
Gly	Asp	Asp	Tyr	Val	Ser	Asp	Ala	Gly	Asp	Ser	Asp	Asp	Asn	Leu	Gln
			100					105					110		
Ser	Pro	Leu	Ile	Ser	Arg	Gln	Thr	Thr	Ser	Leu	Asp	Lys	Asp	Ile	Pro
		115					120					125			
Pro	His	Ala	His	Ser	Asn	Leu	Ala	Ser	Met	Arg	Gln	Gly	Ser	Leu	Leu
	130					135						140			
His	Gly	Asn	Ser	Gly	Glu	Pro	Thr	Gly	Ser	Thr	Gly	Ile	Gly	Gly	Gly
	145				150					155					160
Trp	Gln	Leu	Ala	Trp	Lys	Trp	Ser	Glu	Arg	Glu	Gly	Pro	Asp	Gly	Lys
				165					170					175	
Lys	Glu	Gly	Gly	Phe	Lys	Arg	Ile	Tyr	Leu	His	Gln	Asp	Gly	Gly	Ser
			180					185					190		
Gly	Ser	Arg	Arg	Gly	Ser	Val	Val	Ser	Leu	Pro	Gly	Gly	Asp	Leu	Pro
		195					200					205			
Thr	Asp	Ser	Glu	Val	Val	Gln	Ala	Ala	Ala	Leu	Val	Ser	Gln	Pro	Ala
	210					215					220				
Leu	Tyr	Asn	Glu	Asp	Leu	Met	Arg	Gln	Arg	Pro	Val	Gly	Pro	Ala	Met
	225				230					235					240
Ile	His	Pro	Ser	Glu	Thr	Ile	Ala	Lys	Gly	Pro	Ser	Trp	Ser	Asp	Leu
				245					250					255	
Phe	Glu	Pro	Gly	Val	Lys	His	Ala	Leu	Ile	Val	Gly	Val	Gly	Met	Gln
			260					265					270		
Ile	Leu	Gln	Gln	Phe	Ser	Gly	Ile	Asn	Gly	Val	Leu	Tyr	Tyr	Thr	Pro
		275					280					285			
Gln	Ile	Leu	Gln	Gln	Ala	Gly	Val	Gly	Tyr	Leu	Leu	Ser	Ser	Leu	Gly
Leu	Gly	Ser	Thr	Ser	Ser	Ser	Phe	Leu	Ile	Ser	Ala	Val	Thr	Thr	Leu
	305				310					315					320

Leu Met Leu Pro Cys Ile Ala Ile Ala Met Arg Leu Met Asp Ile Ser
 325 330 335
 Gly Arg Arg Thr Leu Leu Leu Ser Thr Ile Pro Val Leu Ile Ala Ala
 340 345 350
 Leu Leu Ile Leu Val Leu Gly Ser Leu Val Asp Leu Gly Ser Thr Ala
 355 360 365
 Asn Ala Ser Ile Ser Thr Ile Ser Val Ile Val Tyr Phe Cys Phe Phe
 370 375 380
 Val Met Gly Phe Gly Pro Ile Pro Asn Ile Leu Cys Ala Glu Ile Phe
 385 390 395 400
 Pro Thr Arg Val Arg Gly Leu Cys Ile Ala Ile Cys Ala Leu Thr Phe
 405 410 415
 Trp Ile Cys Asp Ile Ile Val Thr Tyr Thr Leu Pro Val Met Leu Asn
 420 425 430
 Ser Val Gly Leu Ala Gly Val Phe Gly Ile Tyr Ala Val Val Cys Phe
 435 440 445
 Ile Ala Trp Val Phe Val Phe Leu Lys Val Pro Glu Thr Lys Gly Met
 450 455 460
 Pro Leu Glu Val Ile Ile Glu Phe Phe Ser Val Gly Ala Lys Gln Phe
 465 470 475 480
 Asp Asp Ala Lys His Asn
 485

<210> 11
 <211> 510
 <212> DNA
 <213> Triticum aestivum

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 <222> (498)

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 ctgggtttctg atctaccgca ccacaccacc acaccacacc aggggcttgc cgttttttgg 120
 gtttttccat ctcatctctt tgggttggttc tctactagag aggggcagct gcagggatcc 180
 ttgggtggaga ggaggggaaga agatgtcggg tgcctgcactg gtgcgagatt cgggttccat 240
 tggcaattctg ctgcaggggt gggacaatgc caccatcgtt ggtgctgttc tgtacatcaa 300
 gaaggaattc cagctcgaaa ataattccgac tgtggagggg ctcatcgttg catgtctca 360
 tgggttgcaa catcatcaca cattctccgg gccagtatca aactgggttg ccgggacctc 420
 ngcctctctc ttgntttcaa ntcccaaggg ctaatcanct aggcaccaat gtcaatgtgc 480
 gncgggaac ctntcaangg ttggaacgtt 510

<210> 12
 <211> 117
 <212> PRT
 <213> Triticum aestivum

<400> 12
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 Arg Arg Leu Arg Ser Val Leu Ile Tyr Arg Thr Thr Pro Pro His His
 20 25 30
 Thr Arg Gly Leu Pro Leu Leu Gly Leu Leu His Leu Ile Ser Leu Val
 35 40 45
 Gly Ser Leu Leu Glu Arg Arg Ser Cys Arg Asp Pro Trp Trp Arg Gly
 50 55 60
 Gly Lys Lys Met Ser Gly Ala Ala Leu Val Ala Ile Ala Ala Ser Ile
 65 70 75 80
 Gly Asn Leu Leu Gln Gly Trp Asp Asn Ala Thr Ile Ala Gly Ala Val
 85 90 95
 Leu Tyr Ile Lys Lys Glu Phe Gln Leu Glu Asn Asn Pro Thr Val Glu
 100 105 110
 Gly Leu Ile Val Ala
 115

<210> 13
 <211> 1487
 <212> DNA
 <213> Triticum aestivum

<400> 13
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 ttgcatggaa atggtcggag cgacaaggcg aggatggcaa gaaggaagga ggcttcaaaa 120
 gaattctact gcaccaagag ggggtggcgg actcaagaag cgtctctgtt gtttcaactc 180
 ctggtggggg tgatgcacag caagggggga ggggttttat ctatctgtgt gctttggtaa 240
 ggcactcgac tctttactcc aaggatctta tggaaagagg tatggggcc ggtccagcca 300
 tgaattcatc attggaggca gctcccaaaag gtccaatctc caagatctg tttgaacctg 360
 ggttgaggag tgcattgttc gtgggtgttg gaattcagat gcttcagcag tttgctggaa 420
 taattggagt tctctactat actctcctaaa ttctggagca agtgggtgtg gctgttcttc 480
 tttccaattc tggctcagat ttagcatcag catccattct ctacagttct ctaccacct 540
 tactcatgct cccaagcatt ggtgtagcca tgagacttat gatatattt ggaagaaggt 600
 ttctgtactt cggcacaatt cccattctga tagcatccct ctttgttttg ggtgtggtca 660
 atpttatcaa cttagagtag gtgcacccag ctgtgtcttc caagtttagc gtcattgtct 720
 actttctgtg ctttgtcatg ggttttggcc cgatcccccag ctttctatgt gcagagattt 780
 tccccaccag agtcctggtt ctctcctatg ctatttgggt cttccacattc tggattttgt 840
 acattatagt taactacaga tgcctgttga tctcdaaggt ctttctctta aaggtgtctt 900
 ttgttatata tgcattggtt tctctattg cctttctctt ctttctctta aaggtccag 960
 agacaaaggg catgcctctc gaggctctca ccagattctt tcttcttggg ggaagcaag 1020
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tgcgcgtgaaa attgcaaatt ggaacgggtcc tgcgtgaggaa cggaaaaaact tttgagttgt 1140
 aaatgagaca gctacccaaa gagctcatca cgaggaacgg gaagctgtaa aagtaggagg 1200
 atctcatgac cccatttcac cgtctattat tgcttattag tactgtactg taatcgatcat 1260
 tagttgctgt aggggtgttc aaattgctaa tctgattctg aactaccatg ctgatgtccg 1320
 aaataaagaa aaagcatgtt tttttttgtg tcaacttgca aacttttttt taaacattgt 1380
 gcaatgtatt gtaaattttt ttatcaactt cctcgatctc agagagaagc acttgtttgt 1440
 aagtcacgaa agattttttt cgacaaaaaa aaaaaaaaaa aaaaaaaa 1487

0210 14
 0211 345
 0212 PRT
 0213 Triticum aestivum

0400 14
 Ser Trp Lys Glu Gly Gly Glu Ala Val Ser Ser Thr Gly Ile Gly Gly
 1 5 10 15
 Gly Trp Gln Leu Ala Trp Lys Trp Ser Glu Arg Gln Gly Glu Asp Gly
 20 25 30
 Lys Lys Glu Gly Gly Phe Lys Arg Ile Tyr Leu His Gln Glu Gly Val
 35 40 45
 Ala Asp Ser Arg Arg Gly Ser Val Val Ser Leu Pro Gly Gly Gly Asp
 50 55 60
 Ala Thr Gln Gly Gly Ser Gly Phe Ile His Ala Ala Ala Leu Val Ser
 65 70 75 80
 His Ser Ala Leu Tyr Ser Lys Asp Leu Met Glu Glu Arg Met Ala Ala
 85 90 95
 Gly Pro Ala Met Ile His Pro Leu Glu Ala Ala Pro Lys Gly Ser Ile
 100 105 110
 Trp Lys Asp Leu Phe Glu Pro Gly Val Arg Arg Ala Leu Phe Val Gly
 115 120 125
 Val Gly Ile Gln Met Leu Gln Gln Phe Ala Gly Ile Asn Gly Val Leu
 130 135 140
 Tyr Tyr Thr Pro Gln Ile Leu Glu Gln Ala Gly Val Ala Val Leu Leu
 145 150 155 160
 Ser Asn Leu Gly Leu Ser Ser Ala Ser Ala Ser Ile Leu Ile Ser Ser
 165 170 175
 Leu Thr Thr Leu Leu Met Leu Pro Ser Ile Gly Val Ala Met Arg Leu
 180 185 190
 Met Asp Ile Ser Gly Arg Arg Phe Leu Leu Leu Gly Thr Ile Pro Ile
 195 200 205
 Leu Ile Ala Ser Leu Ile Val Leu Gly Val Val Asn Val Ile Asn Leu
 210 215 220
 Ser Thr Val Pro His Ala Val Leu Ser Thr Val Ser Val Ile Val Tyr
 225 230 235 240
 Phe Cys Cys Phe Val Met Gly Phe Gly Pro Ile Pro Asn Ile Leu Cys
 245 250 255
 Ala Glu Ile Phe Pro Thr Arg Val Arg Gly Val Cys Ile Ala Ile Cys
 260 265 270

Ala Leu Thr Phe Trp Ile Cys Asp Ile Ile Val Thr Tyr Ser Leu Pro
 275 280 285

Val Met Leu Asn Ala Ile Gly Leu Ala Gly Val Phe Gly Ile Tyr Ala
 290 295 300

Val Val Cys Cys Ile Ala Phe Val Phe Val Tyr Leu Lys Val Pro Glu
 305 310 315 320

Thr Lys Gly Met Pro Leu Glu Val Ile Thr Glu Phe Phe Ala Val Gly
 325 330 335

Ala Lys Gln Ala Gln Ala Thr Ile Ala
 340 345

#210: 15
 #211: 1009
 #212: DNA
 #213: Triticum aestivum

#400: 15
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 tgggggtatc aatggagtcg totactaac acctcagata ctggagcaag caggtgtcgg 120
 ggttcttcta tcaaacattg gactaagtc ttctcagca tatattctta ttagtgcctt 180
 gacaaccttg ctgatgttcc ccagcattgg catcgccatg agactcattg atatgtcagg 240
 aagaaggctt ctctctctt caacaatccc tgtcttgata gtagcgctag ctgtcttggt 300
 tttagtgaat gttctggatg tgggaacat ggtgcaagct ggcctctcaa cgatcagcgt 360
 catcgtctat ttctgcttct tctcctggg gtttgggctt atcccaata ttctctggcg 420
 ggagatttcc cccacctctg tccgtggcat ctgcataagc atctggcggt taacctctg 480
 gatcggcgac atcatcgtga catacactct ccccgctgat ctcaatgcca ttggtctcgc 540
 tggagtcttc ggcataatg ccctcgtttg tctaactagc ttgtattcg tctacatgaa 600
 ggtccctgag acaaaaggga tggccctgga ggtcactaac gaggctctct ctgtcggggc 660
 aaagcagggc aaggaagcca cggactagtt gctctgatcc ggtgatccgc gtgcctgggtg 720
 gtaattttgt ggtgtcataa ctactactac actgggttaac ctggcgatgct ttggtgaaga 780
 aacttcaaaag agagcagata cgggaagact tacatcgtga ggcctgaattg tgcctcgtga 840
 ggcccgcttt tgggaagtagg atatgtactt agatcatctg ctctttctgc ttgggaactt 900
 totatttggt ttattcagaa ttctctgccc atgtaactag tctgtttatc acaatttatg 960
 tggattatgt gtttgcttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1009

#210: 16
 #211: 228
 #212: PRT
 #213: Triticum aestivum

#400: 16
 Glu Pro Gly Val Lys His Ala Leu Phe Val Gly Ile Gly Leu Gln Ile
 1 5 10 15

Leu Gln Gln Phe Ala Gly Ile Asn Gly Val Leu Tyr Tyr Thr Pro Gln
 20 25 30

Ile Leu Glu Gln Ala Gly Val Gly Val Leu Leu Ser Asn Ile Gly Leu
 35 40 45

Ser Ser Ser Ser Ala Ser Ile Leu Ile Ser Ala Leu Thr Thr Leu Leu
 50 55 60

Met Leu Pro Ser Ile Gly Ile Ala Met Arg Leu Met Asp Met Ser Gly
 65 70 75 80

Arg Arg Phe Leu Leu Leu Ser Thr Ile Pro Val Leu Ile Val Ala Leu
 85 90 95

Ala Val Leu Val Leu Val Asn Val Leu Asp Val Gly Thr Met Val His
 100 105 110

Ala Ala Leu Ser Thr Ile Ser Val Ile Val Tyr Phe Cys Phe Phe Val
115 120 125

Met Gly Phe Gly Pro Ile Pro Asn Ile Leu Cys Ala Glu Ile Phe Pro
130 135 140

Thr Ser Val Arg Gly Ile Cys Ile Ala Ile Cys Ala Leu Thr Phe Trp
145 150 155 160

Ile Gly Asp Ile Ile Val Thr Tyr Thr Leu Pro Val Met Leu Asn Ala
165 170 175

Ile Gly Leu Ala Gly Val Phe Gly Ile Tyr Ala Ile Val Cys Val Leu
180 185 190

Ala Phe Val Phe Val Tyr Met Lys Val Pro Glu Thr Lys Gly Met Pro
195 200 205

Leu Glu Val Ile Thr Glu Phe Phe Ser Val Gly Ala Lys Gln Gly Lys
210 215 220

Glu Ala Thr Asp
225

<210> 17
<211> 615
<212> DNA
<213> Zea mays

<220>
<221> unsure
<222> (149)

<220>
<221> unsure
<222> (271)

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<221> unsure
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<221> unsure
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<220>
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<220>
<221> unsure
<222> (602)

<400> 17
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aggttaagctg aagttcgctt tttttttt caattttt ttatgact caatcttttt 180
tggttatgat ataggagttt ttgtttttt gttttttt ttatgact caatgaaaat 240

cagcgacgtg aagctggaga tcttgatggg nctctcaac gtgtactcgc tcatcggctc 300
 gttingcgga gggcggaagt ccgactggat cggncgcgt acaccatcgt gttcgcngcg 350
 gtgatcttct tcgggggggc ttctcatgg gcttcgcgt gaactactgg atgctcatgt 400
 tcgggggctt cgtggcggg atcggcggtg gctacgcgt catgatcgca accgtntaca 450
 cggcggaagt gtcccgcat cggcccggg ctctctgacg tcgttcocgg aggtgttcat 500
 caattcgga tctctaggt acgtgtcaat aagcttttc cgttcocgt cgtgggatng 600
 cctaatgtc ggcac 615

<210> 18
 <211> 167
 <212> PRT
 <213> Zea mays

<220>
 <221> UNSURE
 <222> (34)

<230>
 <231> UNSURE
 <232> (85)

<240>
 <241> UNSURE
 <242> (98)

<250>
 <251> UNSURE
 <252> (112)

<260>
 <261> UNSURE
 <262> (151)

<400> 18
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 Ala Ala Ile Glu Pro Gly Lys Lys Gly Asn Val Lys Phe Ala Phe Ala
 20 25 30
 Cys Xaa Ile Leu Ala Ser Met Thr Ser Ile Leu Leu Gly Tyr Asp Ile
 35 40 45
 Gly Val Met Ser Gly Ala Ser Leu Tyr Ile Lys Lys Asp Leu Lys Ile
 50 55 60
 Ser Asp Val Lys Leu Glu Ile Leu Met Gly Ile Leu Asn Val Tyr Ser
 65 70 75 80
 Leu Ile Gly Ser Xaa Ala Ala Gly Arg Thr Ser Asp Trp Ile Gly Arg
 85 90 95
 Arg Xaa Thr Ile Val Phe Ala Ala Val Ile Phe Phe Ala Gly Ala Xaa
 100 105 110
 Leu Met Gly Phe Ala Val Asn Tyr Trp Met Leu Met Phe Gly Arg Phe
 115 120 125
 Val Ala Gly Ile Gly Val Gly Tyr Ala Leu Met Ile Ala Thr Val Tyr
 130 135 140
 Thr Ala Glu Val Ser Phe Xaa Ser Ala Arg Gly Phe Leu Thr Ser Phe
 145 150 155 160
 Pro Glu Val Phe Ile Thr Ser
 165

#210: 19
 #211: 1914
 #212: DNA
 #213: Sea mays

#401: 19
 gaaagaggga cggcaacotta tototaacog gagatcaaaag aagtagcogt taacgatggc 60
 ttccgacgag ctccgcaaagg ccgtccgagcc cagggaagaag ggcacatgca agtatgootc 120
 catatgtgac atccctggcct ccctggcctc tctcctcctt ggctatgaca ttgggggtgat 180
 gagtggagcg gccatgtaca tcaagaagga cctgaatata acggacgtgc agctggagat 240
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 gaaagagatc gggcgccgct tgacccgtgt gttcggcgtt gtcctctctt togtgggctc 360
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 gacctctgac accgcagagg aggcgcgaga cgggtggcc gacatcaagg ccggcggggg 780
 gattccgaag ggcctcgaag gggacgtagt caccgtaccc ggcaaggaga aaggcggggg 840
 ttggttgag gtgtggaaga agctcctcct gtcgccgacc ccggctgtcc gacgcatact 900
 gctcctcgcc ggggtctcc acttcttcca gcaggtctt ggcagcgaat cctcgttcca 960
 gtacagcgcc cgcctgttca agagcgcggg gacacccgac gacaccaagg tctgggggt 1020
 gacctcgcg gtggcggtga caaagacgtt ctccctcctg gtggccaggt tctgtgtgga 1080
 ccggcggggg cgtcggcctc tctgtgtgat cagcacgggg gggatgattg tctcgtctat 1140
 ctgactcggg tgggggtcca cgtcggcggg gcatcaccgg gacaccaagg tctgtgtgga 1200
 cgtcggcctg tgcctcgtt caacccctgt ctacatcgcc ctcttctcca tggcctcgg 1260
 gccatcagc ggcgtgtaca cctcggaat attcccgct caggtgcgcg cgtcgggctt 1320
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 cctctccaa gccatcaca tggcgggcag ctctctctcc tactccggca ctcggcggtt 1440
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 gggcaagctg ttccggcatgc cagacacggg catgggtgaa gaagcagaag acccgccagc 1560
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 aagtgaagta gatggacaag atcattgtct ttccaactaa ctgatgggc aagaataact 1680
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#210: 20
 #211: 513
 #212: PRT
 #213: Sea mays

#400: 20
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 Val Ile Leu Gly Tyr Asp Ile Gly Val Met Ser Gly Ala Ala Met Tyr
 35 40 45
 Ile Lys Lys Asp Leu Asn Ile Thr Asp Val Gln Leu Val Ile Leu Ile
 50 55 60
 Gly Ile Leu Ser Leu Tyr Ser Leu Ile Gly Ser Phe Ala Gly Ala Arg
 65 70 75 80
 Thr Ser Asp Ala Ile Gly Arg Ala Leu Thr Val Val Phe Ala Ala Val
 85 90 95
 Ile Phe Phe Val Gly Ser Leu Leu Met Gly Phe Ala Val Asn Tyr Gly
 100 105 110

Met Leu Met Ala Gly Arg Phe Val Ala Gly Val Gly Val Gly Tyr Gly
 115 120 125
 Gly Met Ile Ala Pro Val Tyr Thr Ala Glu Ile Ser Pro Ala Ala Ser
 130 135 140
 Arg Gly Phe Leu Thr Thr Phe Pro Glu Val Phe Ile Asn Ile Gly Ile
 145 150 155 160
 Leu Leu Gly Tyr Leu Ser Asn Phe Ala Phe Ala Arg Leu Pro Leu His
 165 170 175
 Leu Gly Trp Arg Val Met Leu Ala Ile Gly Ala Val Pro Ser Gly Leu
 180 185 190
 Leu Ala Leu Leu Val Phe Cys Met Pro Glu Ser Pro Arg Trp Leu Val
 195 200 205
 Leu Lys Gly Arg Leu Ala Asp Ala Arg Ala Val Leu Glu Lys Thr Ser
 210 215 220
 Ala Thr Pro Glu Glu Ala Ala Glu Arg Leu Ala Asp Ile Lys Ala Ala
 225 230 235 240
 Ala Gly Ile Pro Lys Gly Leu Asp Gly Asp Val Val Thr Val Pro Gly
 245 250 255
 Lys Glu Gln Gly Gly Gly Glu Leu Gln Val Trp Lys Lys Leu Ile Leu
 260 265 270
 Ser Pro Thr Pro Ala Val Arg Arg Ile Leu Leu Ser Ala Val Gly Leu
 275 280 285
 His Phe Phe Gln Gln Ala Ser Gly Ser Asp Ser Val Val Gln Tyr Ser
 290 295 300
 Ala Arg Leu Phe Lys Ser Ala Gly Ile Thr Asp Asp Asn Lys Leu Leu
 305 310 315 320
 Gly Val Thr Cys Ala Val Gly Val Thr Lys Thr Phe Phe Ile Leu Val
 325 330 335
 Ala Thr Phe Leu Leu Asp Arg Ala Gly Arg Arg Pro Leu Leu Leu Ile
 340 345 350
 Ser Thr Gly Gly Met Ile Val Ser Leu Ile Cys Leu Gly Ser Gly Leu
 355 360 365
 Thr Val Ala Gly His His Pro Asp Thr Lys Val Ala Trp Ala Val Ala
 370 375 380
 Leu Cys Ile Ala Ser Thr Leu Ser Tyr Ile Ala Phe Phe Ser Ile Gly
 385 390 395 400
 Leu Gly Pro Ile Thr Gly Val Tyr Thr Ser Glu Ile Phe Pro Leu Gln
 405 410 415
 Val Arg Ala Leu Gly Phe Ala Val Gly Val Ala Ser Asn Arg Val Thr
 420 425 430
 Ser Ala Val Ile Ser Met Thr Phe Leu Ser Leu Ser Lys Ala Ile Thr
 435 440 445
 Ile Gly Gly Ser Phe Phe Leu Tyr Ser Gly Ile Ala Ala Val Ala Trp
 450 455 460

Val Phe Phe Phe Thr Cys Leu Pro Glu Thr Arg Gly Arg Thr Leu Glu
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Glu Met Gly Lys Leu Phe Gly Met Pro Asp Thr Gly Met Ala Glu Glu
485 490 495

Ala Glu Asp Ala Ala Ala Lys Glu Lys Val Val Glu Leu Pro Ser Ser
500 505 510

Lys

<210> 21
<211> 2017
<212> DNA
<213> Oryza sativa

<400> 21
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tctatttcaa gtacatggat tttatttttg tctttgcttt gtccttaaaa gttgtactat 1860
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aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 2017

<210> 22
<211> 510
<212> PRT
<213> Oryza sativa

<220>
<221> UNSURE
<222> 192

<400> 21
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 35 40 45
 Ile Lys Lys Asp Phe Asn Ile Ser Asp Gly Lys Val Glu Val Leu Met
 50 55 60
 Gly Ile Leu Asn Leu Tyr Ser Leu Ile Gly Ser Phe Ala Ala Gly Arg
 65 70 75 80
 Thr Ser Asp Trp Ile Gly Arg Arg Tyr Thr Ile Val Phe Ala Ala Val
 85 90 95
 Ile Phe Phe Ala Gly Xaa Phe Leu Met Gly Phe Ala Val Asn Tyr Ala
 100 105 110
 Met Leu Met Phe Gly Arg Phe Val Ala Gly Ile Gly Val Gly Tyr Ala
 115 120 125
 Leu Met Ile Ala Pro Val Tyr Thr Ala Glu Val Ser Pro Ala Ser Ala
 130 135 140
 Arg Gly Phe Leu Thr Ser Phe Pro Glu Val Phe Ile Asn Phe Gly Ile
 145 150 155 160
 Leu Leu Gly Tyr Val Ser Asn Tyr Ala Phe Ser Arg Leu Pro Leu Asn
 165 170 175
 Leu Gly Trp Arg Ile Met Leu Gly Ile Gly Ala Ala Pro Ser Val Leu
 180 185 190
 Leu Ala Leu Met Val Leu Gly Met Pro Glu Ser Pro Arg Trp Leu Val
 195 200 205
 Met Lys Gly Arg Leu Ala Asp Ala Lys Val Val Leu Glu Lys Thr Ser
 210 215 220
 Asp Thr Ala Glu Glu Ala Ala Glu Arg Leu Ala Asp Ile Lys Ala Ala
 225 230 235 240
 Ala Gly Ile Pro Glu Glu Leu Asp Gly Asp Val Val Thr Val Pro Lys
 245 250 255
 Arg Gly Ser Gly Asn Glu Lys Arg Val Trp Lys Glu Leu Ile Leu Ser
 260 265 270
 Pro Thr Pro Ala Met Arg Arg Ile Leu Leu Ser Gly Ile Gly Ile His
 275 280 285
 Phe Phe Gln His Ala Leu Gly Ile His Ser Val Val Phe Tyr Ser Pro
 290 295 300
 Leu Val Phe Lys Ser Pro Gly Leu Thr Asn Asp Lys His Phe Leu Gly
 305 310 315 320
 Thr Thr Trp Pro Phe Gly Val Thr Lys Arg Leu Ile Ile Leu Leu Ala
 325 330 335
 Thr Phe Phe Ile Asp Gly Val Gly Arg Arg Pro Leu Leu Leu Gly Ser
 340 345 350 355
 Thr Gly Gly Ile Ile Leu Ser Leu Ile Gly Leu Gly Ala Gly Leu Thr
 355 360 365

Val Val Gly Gln His Pro Asp Ala Lys Ile Pro Trp Ala Ile Gly Leu
 370 375 380

Ser Ile Ala Ser Thr Leu Ala Tyr Val Ala Phe Phe Ser Ile Gly Leu
 385 390 395 400

Gly Pro Ile Thr Trp Val Tyr Ser Ser Glu Ile Phe Pro Leu Gln Val
 405 410 415

Arg Ala Leu Gly Cys Ser Leu Gly Val Ala Ala Asn Arg Val Thr Ser
 420 425 430

Gly Val Ile Ser Met Thr Phe Leu Ser Leu Ser Lys Ala Ile Thr Ile
 435 440 445

Gly Gly Ser Phe Phe Leu Tyr Ser Gly Ile Ala Ala Leu Ala Trp Val
 450 455 460

Phe Phe Tyr Thr Tyr Leu Pro Glu Thr Arg Gly Arg Thr Leu Glu Glu
 465 470 475 480

Met Ser Lys Leu Phe Gly Asp Thr Ala Ala Ala Ser Glu Ser Asp Glu
 485 490 495

Pro Ala Lys Glu Lys Lys Lys Val Glu Met Ala Ala Thr Asn
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<210> 23
 <211> 1853
 <212> DNA
 <213> Glycine max

<400> 23
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 gctagttaga gctgcagaag ctacataagac acttcaggat ttgatctctc caaagaagcg 240
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 actctttaga ctagtctctt aaatcaaaa gagaaattaa agtcaaaaa aaa 1853

<210> 24
 <211> 523
 <212> PRT
 <213> Glycine max

<400> 24

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Gln	Asp	Phe	Asp	Pro	Pro	Lys	Lys	Arg	Lys	Arg	Asn	Lys	Tyr	Ala	Phe
	20							25					30		
Ala	Cys	Ala	Met	Leu	Ala	Ser	Met	Thr	Ser	Ile	Leu	Leu	Gly	Tyr	Asp
	35						40					45			
Ile	Gly	Val	Met	Ser	Gly	Ala	Ala	Ile	Tyr	Ile	Lys	Arg	Asp	Leu	Lys
	50					55					60				
Val	Ser	Asp	Glu	Gln	Ile	Glu	Ile	Leu	Leu	Gly	Ile	Ile	Asn	Leu	Tyr
	65				70					75					80
Ser	Leu	Ile	Gly	Ser	Cys	Leu	Ala	Gly	Arg	Thr	Ser	Asp	Trp	Ile	Gly
				85					90					95	
Pro	Arg	Tyr	Thr	Ile	Val	Phe	Ala	Gly	Thr	Ile	Phe	Phe	Val	Gly	Ala
			100					105						110	
Leu	Leu	Met	Gly	Phe	Ser	Pro	Asn	Tyr	Ser	Phe	Leu	Met	Phe	Gly	Arg
		115					120					125			
Phe	Val	Ala	Gly	Ile	Gly	Ile	Gly	Tyr	Ala	Leu	Met	Ile	Ala	Pro	Val
	130					135					140				
Tyr	Thr	Ala	Glu	Val	Ser	Pro	Ala	Ser	Ser	Arg	Gly	Phe	Leu	Thr	Ser
145					150					155					160
Phe	Pro	Glu	Val	Phe	Ile	Asn	Gly	Gly	Ile	Leu	Ile	Gly	Tyr	Ile	Ser
				165					170					175	
Asn	Tyr	Ala	Phe	Ser	Lys	Leu	Thr	Leu	Lys	Val	Gly	Trp	Arg	Met	Met
		180						185					190		
Leu	Gly	Val	Gly	Ala	Ile	Pro	Ser	Val	Leu	Leu	Thr	Val	Gly	Val	Leu
	195					200						205			
Ala	Met	Pro	Glu	Ser	Pro	Arg	Trp	Leu	Val	Met	Arg	Gly	Arg	Leu	Gly
	210					215					220				
Glu	Ala	Arg	Lys	Val	Leu	Asn	Lys	Thr	Ser	Asp	Ser	Lys	Glu	Glu	Ala
225					230					235					240
Gln	Leu	Arg	Leu	Ala	Glu	Ile	Lys	Gln	Ala	Ala	Gly	Ile	Pro	Glu	Ser
				245				250						255	
Cys	Asn	Asp	Asp	Val	Val	Gln	Val	Asn	Lys	Gln	Ser	Asn	Gly	Glu	Gly
		260						265					270		
Val	Trp	Lys	Glu	Leu	Phe	Leu	Tyr	Pro	Thr	Pro	Ala	Ile	Arg	His	Ile
	275						280						285		
Val	Ile	Ala	Ala	Leu	Gly	Ile	His	Phe	Phe	Gln	Gln	Ala	Ser	Gly	Val
	290					295									
Asp	Ala	Val	Val	Leu	Tyr	Ser	Ile	Arg	Ile	Ile	Glu	Lys	Ala	Gly	Ile
300					305					310					320

Thr Asn Asp Thr His Lys Leu Leu Ala Thr Val Ala Val Gly Phe Val
 325 330 335
 Lys Thr Val Phe Ile Leu Ala Ala Thr Phe Thr Leu Asp Arg Val Gly
 340 345 350
 Arg Arg Pro Leu Leu Leu Ser Ser Val Gly Gly Met Val Leu Ser Leu
 355 360 365
 Leu Thr Leu Ala Ile Ser Leu Thr Val Ile Asp His Ser Glu Arg Lys
 370 375 380
 Leu Met Trp Ala Val Gly Ser Ser Ile Ala Met Val Leu Ala Tyr Val
 385 390 395 400
 Ala Thr Phe Ser Ile Gly Ala Gly Pro Ile Thr Trp Val Tyr Ser Ser
 405 410 415
 Glu Ile Phe Pro Leu Arg Leu Arg Ala Gln Gly Ala Ala Ala Gly Val
 420 425 430
 Ala Val Asn Arg Thr Thr Ser Ala Val Val Ser Met Thr Phe Leu Ser
 435 440 445
 Leu Thr Arg Ala Ile Thr Ile Gly Gly Ala Phe Phe Leu Tyr Cys Gly
 450 455 460
 Ile Ala Thr Val Gly Trp Ile Phe Phe Tyr Thr Val Leu Pro Glu Thr
 465 470 475 480
 Arg Gly Lys Thr Leu Glu Asp Met Glu Gly Ser Phe Gly Thr Phe Arg
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 Ala Gln Val Gln Leu Gly Thr Asn Val Gln Thr
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<210> 25
 <211> 2089
 <212> DNA
 <213> Triticum aestivum

<400> 25
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 gggcaacgtg aggttgcgct tgcctggcgc catcctcgcc tccatgacct ccactctcct 180
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<210> 26
<211> 539
<212> PRT
<213> Triticum aestivum

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Ala Ala Val Glu Pro Lys Lys Lys Gly Asn Val Arg Phe Ala Phe Ala
35 40 45

Cys Ala Ile Leu Ala Ser Met Thr Ser Ile Leu Leu Gly Tyr Asp Ile
50 55 60

Gly Val Met Ser Gly Ala Ser Leu Tyr Ile Gln Lys Asp Leu Lys Ile
65 70 75 80

Asn Asp Thr Gln Leu Glu Val Leu Met Gly Ile Leu Asn Val Tyr Ser
85 90 95

Leu Ile Gly Ser Phe Ala Ala Gly Arg Thr Ser Asp Trp Ile Gly Arg
100 105 110

Arg Phe Thr Ile Val Phe Ala Ala Val Ile Phe Phe Ala Gly Ala Leu
115 120 125

Ile Met Gly Phe Ser Val Asn Tyr Ala Met Leu Met Phe Gly Arg Phe
130 135 140

Val Ala Gly Ile Gly Val Gly Tyr Ala Leu Met Ile Ala Pro Val Asn
145 150 155 160

Thr Gly Glu Val Ser Pro Ala Ser Ala Arg Gly Val Leu Thr Ser Phe
165 170 175

Pro Glu Val Phe Ile Asn Phe Gly Ile Leu Leu Gly Tyr Val Ser Asn
180 185 190

Phe Ala Phe Ala Arg Leu Ser Leu Arg Leu Gly Trp Arg Ile Met Leu
195 200 205

Gly Ile Gly Ala Val Pro Ser Val Leu Leu Ala Phe Met Val Leu Gly
210 215 220

Met Pro Glu Ser Pro Arg Trp Leu Val Met Lys Gly Arg Leu Ala Asp
225 230 235 240

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Ala Lys Val Val Leu Ala Lys Thr Ser Asp Thr Pro Glu Glu Ala Ala
245 250 255
Glu Arg Ile Ala Asp Ile Lys Thr Ala Ala Gly Ile Pro Leu Gly Leu
260 265 270
Asp Gly Asp Val Val Pro Val Pro Lys Asn Lys Gly Ser Ser Glu Glu
275 280 285
Lys Arg Val Leu Lys Asp Leu Ile Leu Ser Pro Thr Ile Ala Met Arg
290 295 300
His Ile Leu Ile Ala Gly Ile Gly Ile His Phe Phe Gln Gln Ser Ser
305 310 315 320
Gly Ile Asp Ala Val Val Leu Tyr Ser Pro Leu Val Phe Lys Ser Ala
325 330 335
Gly Ile Thr Gly Asp Ser Arg Leu Arg Gly Thr Thr Val Ala Val Gly
340 345 350
Ala Thr Asn Thr Val Phe Ile Leu Val Ala Thr Phe Leu Leu Asp Arg
355 360 365
Ile Arg Arg Arg Pro Leu Val Leu Thr Ser Thr Gly Gly Met Leu Val
370 375 380
Ser Leu Val Gly Leu Ala Thr Gly Leu Thr Val Ile Ser Arg His Pro
385 390 395 400
Asp Glu Lys Ile Thr Trp Ala Ile Val Leu Cys Ile Phe Cys Ile Met
405 410 415
Ala Tyr Val Ala Phe Phe Ser Ile Gly Leu Gly Pro Ile Thr Trp Val
420 425 430
Tyr Ser Ser Glu Ile Phe Pro Leu His Val Arg Ala Leu Gly Cys Ser
435 440 445
Leu Gly Val Ala Val Asn Arg Leu Thr Ser Gly Val Ile Ser Met Thr
450 455 460
Phe Ile Ser Leu Ser Lys Ala Met Thr Ile Gly Gly Ala Phe Phe Leu
465 470 475 480
Phe Ala Gly Ile Ala Ser Phe Ala Trp Val Phe Phe Phe Ala Tyr Leu
485 490 495
Pro Glu Thr Arg Gly Arg Thr Leu Glu Asp Met Ser Ser Leu Phe Gly
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Asn Thr Ala Thr His Lys Gln Gly Ala Ala Glu Ala Asp Asp Ala
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Gly Glu Lys Lys Val Glu Met Ala Ala Thr Asn
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<210> 27
<211> 1872
<212> TNA
<213> Triticum aestivum

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ggctttctgt ggtctcttgg aggtttttt agtttttt ttgttttt ggaatttcaa 181

gtacgccttc	acctggccccc	tctgtgcttc	catggccccc	atcgtcctcg	getacgaagt	240
tgggggtgatg	agcgggtgogt	cgctgtacat	caagagggag	ctgcagatca	cggaagtga	300
gctggagatc	atgatgggca	tctgagcgt	gtacggctc	atcgggtcct	tctcgggogc	360
gaggacgtcc	gaactgggtcg	ggcggcgggt	caactgtctc	ttcggggcgc	ccatcttcaa	420
caacgggtcc	ttgctcatgg	gcttcgggggt	caactaagcc	atgctcatgg	tggggcgtt	480
cgtcacccgga	atcggggtgg	gtacggccat	catgggtcgc	ccagtgtaca	cgcggagagt	540
gtcccccggcg	tggggccggcg	gtctctccac	gtctttccac	gaggtgttca	tcaatgtggg	600
catactcctt	ggctacgtct	ccaaactaagc	cttcggcggc	ctcccgctcc	acctgaagtg	660
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cggccaggag	aagcaggtgt	ggaaggagct	catcttttctg	ccgacccag	ccatggggcg	960
catactgtct	ggggcgctcg	gcatacattt	ctttcagcag	gagacgggt	ccgaactcgt	1020
cgtgctctat	agcccaacgg	tgttcacagag	cgggggcctc	acgggggaca	accacctgtt	1080
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ggagataggg	aagcttttctg	gcattgacgga	caaggccgtc	gaagcccaag	acacccccac	1620
gaaagacaa	ggaaaagttag	gggagatgaa	ctagtgcagct	agaactcaac	caactgttac	1680
cgtgttacta	ccatagagat	gtatctgata	aaagtggcaa	tataagtgtc	acggactctt	1740
ggtgctcatt	gatggattgt	ttggataaaa	tttcaagaga	attgtttcaa	gtttggatcc	1800
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1860
aaaaaaaaaa	aa					1872

1210 28
 1211 529
 1212 PRT
 1213 Triticum aestivum

1400 28

Met	Lys	Met	Ser	Pro	Glu	Arg	Lys	Gly	Ala	Glu	Asp	Lys	Glu	Glu	Gly
1				5					10					15	
Ser	Arg	Met	Ala	Ser	Ala	Ala	Leu	Pro	Glu	Pro	Gly	Ala	Val	His	Pro
			20					25					30		
Arg	Asn	Lys	Gly	Asn	Phe	Lys	Tyr	Ala	Phe	Thr	Cys	Ala	Leu	Cys	Ala
		35					40					45			
Ser	Met	Ala	Thr	Ile	Val	Leu	Gly	Tyr	Asp	Val	Gly	Val	Met	Ser	Gly
	50					55				60					
Ala	Ser	Leu	Tyr	Ile	Lys	Arg	Asp	Leu	Gln	Ile	Thr	Asp	Val	Gln	Leu
	65				70					75					80
Glu	Ile	Met	Met	Gly	Ile	Leu	Ser	Val	Tyr	Ala	Leu	Ile	Gly	Ser	Phe
				85					90					95	
Leu	Gly	Ala	Arg	Thr	Ser	Asp	Trp	Val	Gly	Arg	Arg	Val	Thr	Val	Val
			100					105					110		
Phe	Ala	Ala	Ala	Ile	Phe	Asn	Asn	Gly	Ser	Leu	Leu	Met	Gly	Phe	Ala
			115				120					125			
Val	Asn	Tyr	Ala	Met	Leu	Met	Val	Gly	Arg	Phe	Val	Thr	Gly	Ile	Gly
	130					135					140				
Val	Gly	Tyr	Ala	Ile	Met	Val	Ala	Pro	Val	Tyr	Thr	Phe	Ala	Val	Ser
	145				150					155					160

Pro Ala Ser Ala Arg Gly Phe Leu Thr Ser Phe Thr Glu Val Phe Ile
 165 170 175
 Asn Val Gly Ile Leu Leu Gly Tyr Val Ser Asn Tyr Ala Phe Ala Arg
 180 185 190
 Leu Pro Leu His Leu Ser Trp Arg Val Met Leu Gly Ile Gly Ala Val
 195 200 205
 Pro Ser Ala Leu Leu Ala Leu Met Val Phe Gly Met Pro Glu Ser Pro
 210 215 220
 Arg Trp Leu Val Met Lys Gly Arg Leu Ala Asp Ala Arg Ala Val Leu
 225 230 235 240
 Ala Lys Thr Ser Asp Thr Pro Glu Glu Ala Val Glu Arg Leu Asp Gln
 245 250 255
 Ile Lys Ala Ala Ala Gly Ile Pro Arg Glu Leu Asp Gly Asp Val Val
 260 265 270
 Val Met Pro Lys Thr Lys Gly Gly Gln Glu Lys Gln Val Trp Lys Glu
 275 280 285
 Leu Ile Phe Ser Pro Thr Pro Ala Met Arg Arg Ile Leu Leu Ala Ala
 290 295 300
 Leu Gly Ile His Phe Phe Gln Gln Ala Thr Gly Ser Asp Ser Val Val
 305 310 315 320
 Leu Tyr Ser Pro Arg Val Phe Gln Ser Ala Gly Ile Thr Gly Asp Asn
 325 330 335
 His Leu Leu Gly Ala Thr Cys Ala Met Gly Val Met Lys Thr Leu Phe
 340 345 350
 Ile Leu Val Ala Thr Phe Gln Leu Asp Arg Val Gly Arg Arg Pro Leu
 355 360 365
 Leu Leu Thr Ser Thr Ala Gly Met Leu Ala Cys Leu Ile Gly Leu Gly
 370 375 380
 Thr Gly Leu Thr Val Val Gly Arg His Pro Asp Ala Lys Val Pro Trp
 385 390 395 400
 Ala Ile Gly Leu Cys Ile Val Ser Ile Leu Ala Tyr Val Ser Phe Phe
 405 410 415
 Ser Ile Gly Leu Gly Pro Leu Thr Ser Val Tyr Thr Ser Ala Val Phe
 420 425 430
 Pro Leu Arg Val Arg Ala Leu Gly Phe Ala Leu Gly Thr Ser Cys Asn
 435 440 445
 Arg Val Thr Ser Ala Ala Val Ser Met Ser Phe Leu Ser Leu Ser Lys
 450 455 460
 Ala Ile Thr Ile Gly Gly Ser Phe Phe Leu Tyr Ala Gly Ile Ala Ala
 465 470 475 480
 Ile Gly Trp Ile Phe Phe Phe Thr Phe Ile Pro Ala Thr Arg Gly Leu
 485 490 495
 Pro Leu Gln Gln Ile Gly Lys Leu Ile Gly Met Thr Asp Thr Ala Val
 500 505 510

Glu Ala Gln Asp Thr Ala Thr Lys Asp Lys Ala Lys Val Gly Glu Met
 515 520 525

Asn

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 <211> 729
 <212> FRT
 <213> Arabidopsis thaliana

<400> 29
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 Leu Gln Gly Trp Asp Asn Ala Thr Ile Ala Gly Ala Val Leu Tyr Ile
 20 25 30
 Lys Lys Glu Phe Asn Leu Glu Ser Asn Pro Ser Val Glu Gly Leu Ile
 35 40 45
 Val Ala Met Ser Leu Ile Gly Ala Thr Leu Ile Thr Thr Cys Ser Gly
 50 55 60
 Gly Val Ala Asp Trp Leu Gly Arg Arg Pro Met Leu Ile Leu Ser Ser
 65 70 75 80
 Ile Leu Tyr Phe Val Gly Ser Leu Val Met Leu Trp Ser Pro Asn Val
 85 90 95
 Tyr Val Leu Leu Leu Gly Arg Leu Leu Asp Gly Phe Gly Val Gly Leu
 100 105 110
 Val Val Thr Leu Val Pro Ile Tyr Ile Ser Glu Thr Ala Pro Pro Glu
 115 120 125
 Ile Arg Gly Leu Leu Asn Thr Leu Pro Gln Phe Thr Gly Ser Gly Gly
 130 135 140
 Met Phe Leu Ser Tyr Cys Met Val Phe Gly Met Ser Leu Met Pro Ser
 145 150 155 160
 Pro Ser Trp Arg Leu Met Leu Gly Val Leu Phe Ile Pro Ser Leu Val
 165 170 175
 Phe Phe Phe Leu Thr Val Phe Phe Leu Pro Glu Ser Pro Arg Trp Leu
 180 185 190
 Val Ser Lys Gly Arg Met Leu Glu Ala Lys Arg Val Leu Gln Arg Leu
 195 200 205
 Arg Gly Arg Glu Asp Val Ser Gly Glu Met Ala Leu Leu Val Glu Gly
 210 215 220
 Leu Gly Ile Gly Gly Glu Thr Thr Ile Glu Glu Tyr Ile Ile Gly Pro
 225 230 235 240
 Ala Asp Glu Val Thr Asp Asp His Asp Ile Ala Val Asp Lys Asp Gln
 245 250 255
 Ile Lys Leu Tyr Gly Ala Ala Glu Gly Leu Ser Thr Val Ala Arg Pro
 260 265 270
 Val Lys Gly Gly Ser Thr Met Ser Val Leu Ser Arg His Gly Ser Thr
 275 280 285

Met	Ser	Arg	Arg	Gln	Gly	Ser	Leu	Ile	Asp	Pro	Leu	Val	Thr	Leu	Phe	290	295	300
Gly	Ser	Val	His	Glu	Lys	Met	Pro	Asp	Thr	Gly	Ser	Met	Arg	Ser	Ala	305	310	315
Leu	Phe	Pro	His	Phe	Gly	Ser	Met	Phe	Ser	Val	Gly	Gly	Asn	Gln	Pro	325	330	335
Arg	His	Glu	Asp	Trp	Asp	Glu	Glu	Asn	Leu	Val	Gly	Glu	Gly	Glu	Asp	340	345	350
Tyr	Pro	Ser	Asp	His	Gly	Asp	Asp	Ser	Glu	Asp	Asp	Leu	His	Ser	Pro	355	360	365
Leu	Ile	Ser	Arg	Gln	Thr	Thr	Ser	Met	Glu	Lys	Asp	Met	Pro	His	Thr	370	375	380
Ala	His	Gly	Thr	Leu	Ser	Thr	Phe	Arg	His	Gly	Ser	Gln	Val	Gln	Gly	385	390	395
Ala	Gln	Gly	Glu	Gly	Ala	Gly	Ser	Met	Gly	Ile	Gly	Gly	Gly	Trp	Gln	405	410	415
Val	Ala	Trp	Lys	Trp	Thr	Glu	Arg	Glu	Asp	Glu	Ser	Gly	Gln	Lys	Glu	420	425	430
Glu	Gly	Phe	Pro	Gly	Ser	Arg	Arg	Gly	Ser	Ile	Val	Ser	Leu	Pro	Gly	435	440	445
Gly	Asp	Gly	Thr	Gly	Glu	Ala	Asp	Phe	Val	Gln	Ala	Ser	Ala	Leu	Val	450	455	460
Ser	Gln	Pro	Ala	Leu	Tyr	Ser	Lys	Asp	Leu	Leu	Lys	Glu	His	Thr	Ile	465	470	475
Gly	Pro	Ala	Met	Val	His	Pro	Ser	Glu	Thr	Thr	Lys	Gly	Ser	Ile	Trp	485	490	495
His	Asp	Leu	His	Asp	Pro	Gly	Val	Lys	Arg	Ala	Leu	Val	Val	Gly	Val	500	505	510
Gly	Leu	Gln	Ile	Leu	Gln	Gln	Phe	Ser	Gly	Ile	Asn	Gly	Val	Leu	Tyr	515	520	525
Tyr	Thr	Pro	Gln	Ile	Leu	Glu	Gln	Ala	Gly	Val	Gly	Ile	Leu	Leu	Ser	530	535	540
Asn	Met	Gly	Ile	Ser	Ser	Ser	Ser	Ala	Ser	Leu	Leu	Ile	Ser	Ala	Leu	545	550	555
Thr	Thr	Phe	Val	Met	Leu	Pro	Ala	Ile	Ala	Val	Ala	Met	Arg	Leu	Met	560	565	570
Asp	Leu	Ser	Gly	Arg	Arg	Thr	Leu	Leu	Leu	Thr	Thr	Ile	Pro	Ile	Leu	580	585	590
Ile	Ala	Ser	Leu	Leu	Val	Leu	Val	Ile	Ser	Asn	Leu	Val	His	Met	Asn	595	600	605
Ser	Ile	Val	His	Ala	Val	Leu	Ser	Thr	Val	Ser	Val	Val	Leu	Tyr	Phe	610	615	620
Cys	Phe	Phe	Val	Met	Gly	Phe	Gly	Ile	Ala	Ile	Asn	Ile	Leu	Cys	Ser	625	630	635

Glu Ile Phe Pro Thr Arg Val Arg Gly Ile Cys Ile Ala Ile Cys Ala
 645 650 655
 Leu Thr Phe Trp Ile Cys Asp Ile Ile Val Thr Tyr Ser Leu Pro Val
 660 665 670
 Leu Leu Lys Ser Ile Gly Leu Ala Gly Val Phe Gly Met Tyr Ala Ile
 675 680 685
 Val Cys Cys Ile Ser Trp Val Phe Val Phe Ile Lys Val Pro Glu Thr
 690 695 700
 Lys Gly Met Pro Leu Glu Val Ile Thr Glu Phe Phe Ser Val Gly Ala
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 Arg Gln Ala Glu Ala Ala Lys Asn Glu
 725

<210> 30
 <211> 549
 <212> PRT
 <213> Beta vulgaris

<400> 30
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 35 40 45
 Val Leu Leu Gly Tyr Asp Ile Gly Val Met Ser Gly Ala Ile Ile Tyr
 50 55 60
 Leu Lys Glu Asp Trp His Ile Ser Asp Thr Gln Ile Gly Val Leu Val
 65 70 75 80
 Gly Ile Leu Asn Ile Tyr Cys Leu Phe Gly Ser Phe Ala Ala Gly Arg
 85 90 95
 Thr Ser Asp Trp Ile Gly Arg Arg Tyr Thr Ile Val Leu Ala Gly Ala
 100 105 110
 Ile Phe Phe Val Gly Ala Leu Leu Met Gly Phe Ala Thr Asn Tyr Ala
 115 120 125
 Phe Leu Met Val Gly Arg Phe Val Thr Gly Ile Gly Val Gly Tyr Ala
 130 135 140
 Leu Met Ile Ala Pro Val Tyr Thr Ala Glu Val Ser Pro Ala Ser Ser
 145 150 155 160
 Arg Gly Phe Leu Thr Ser Phe Pro Glu Val Phe Ile Asn Ala Gly Ile
 165 170 175
 Leu Leu Gly Tyr Ile Ser Asn Leu Ala Phe Ser Ser Leu Pro Thr His
 180 185 190
 Leu Ser Trp Arg Phe Met Leu Gly Ile Gly Ala Ile Pro Ser Ile Phe
 195 200 205
 Leu Ala Ile Gly Val Leu Ala Met Pro Ala Ser Pro Arg Trp Leu Val
 210 215 220

Met Gln Gly Arg Leu Gly Asp Ala Lys Lys Val Leu Asn Arg Ile Ser
 225 230 235 240
 Asp Ser Pro Glu Glu Ala Gln Leu Arg Leu Ser Glu Ile Lys Gln Thr
 245 250 255
 Ala Gly Ile Pro Ala Glu Cys Asp Glu Asp Ile Tyr Lys Val Glu Lys
 260 265 270
 Thr Lys Ile Lys Ser Gly Asn Ala Val Trp Lys Glu Leu Phe Phe Asn
 275 280 285
 Pro Thr Pro Ala Val Arg Arg Ala Val Ile Ala Gly Ile Gly Ile His
 290 295 300
 Phe Phe Gln Gln Ala Ser Gly Ile Asp Ala Val Val Leu Tyr Ser Pro
 305 310 315 320
 Arg Ile Phe Gln Ser Ala Gly Ile Thr Asn Ala Arg Lys Gln Leu Leu
 325 330 335
 Ala Thr Val Ala Val Gly Val Val Lys Thr Leu Phe Ile Leu Val Ala
 340 345 350
 Thr Phe Gln Leu Asp Lys Tyr Gly Arg Arg Pro Leu Leu Leu Thr Ser
 355 360 365
 Val Gly Gly Met Ile Ile Ala Ile Leu Thr Leu Ala Met Ser Leu Thr
 370 375 380
 Val Ile Asp His Ser His His Lys Ile Thr Trp Ala Ile Ala Leu Cys
 385 390 395 400
 Ile Thr Met Val Cys Ala Val Val Ala Ser Phe Ser Ile Gly Leu Gly
 405 410 415
 Pro Ile Thr Trp Val Tyr Ser Ser Glu Val Phe Pro Leu Arg Leu Arg
 420 425 430
 Ala Gln Gly Thr Ser Met Gly Val Ala Val Asn Arg Val Val Ser Gly
 435 440 445
 Val Ile Ser Ile Phe Phe Leu Pro Leu Ser His Lys Ile Thr Thr Gly
 450 455 460
 Gly Ala Phe Phe Leu Phe Gly Gly Ile Ala Ile Ile Ala Trp Phe Phe
 465 470 475 480
 Phe Leu Thr Phe Leu Pro Glu Thr Arg Gly Arg Thr Leu Glu Asn Met
 485 490 495
 His Glu Leu Phe Glu Asp Phe Arg Trp Arg Glu Ser Ile Ile Gly Asn
 500 505 510
 Lys Ser Asn Asn Asp Glu Asn Ser Thr Arg Lys Gln Ser Asn Gly Asn
 515 520 525
 Asp Lys Ser Gln Val Gln Leu Gly Glu Thr Thr Thr Ser Thr Thr Val
 530 535 540
 Thr Asn Asp Asn His
 545